

**COORDINATION STUDY OF TRANSPORTATION  
SERVICES WITHIN ST. CLAIR COUNTY**

**Prepared for  
BLUE WATER AREA TRANSPORTATION  
COMMISSION**

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# **BLUE WATER AREA TRANSPORTATION COMMISSION COORDINATION STUDY OF TRANSPORTATION SERVICES WITHIN ST. CLAIR COUNTY**

## **Concept**

The goal of coordinating transportation services within St. Clair County is to maximize the availability of state and Federal dollars while achieving a more efficient use of resources. By centralizing the dispatching and operation of services under the Blue Water Area Transportation Commission, the first objective will be to generate greater efficiencies through combining the separate services of into a single entity, thus creating greater economies of scale through the elimination of duplicate services operated by separate agencies. A second objective is to lower the maintenance cost per mile for area transportation through a better utilization of capital resources. The third objective is to lower the administrative overhead burden as a percentage of the combined transportation budget. If all three objectives are met, residents of St. Clair County will benefit by focusing its social service network on the business of people rather than transportation.

## **Approach**

The coordination of services must be viewed as a long-term process rather than an event. We make this point because the recommendations throughout this plan reflect steps to evolve the transportation network in Port Huron and St. Clair County. The Coordination Plan details the steps to re-invent the BWT infrastructure to support an expanded, more complex system through service coordination. Our approach starts with the assumption that the decision to pursue coordination has already been made.

In preparing this plan, each of the major participants (ARC, CMH, and EOC) was interviewed to determine the commonality and differences among the current transportation programs operated by the participants. From this effort we are able to estimate the size and scope of the project, design an operating profile for the service, and identify changes and additions that must be made to BWT's current operating processes and procedures.

The coordination of services under the Blue Water Transit (BWT) organization is best accomplished through a phased implementation. ARC, CMH and EOC – Head Start have all agreed in principle to participate. Other programs such as Senior Services may follow in a more limited role if coordination efforts prove to provide a greater benefit through a reduction of expenses and the expansion of available services.

The recommended approach is to start by building an operating base from which services and resources can be expanded. This “go slow” approach will allow BWT to build the infrastructure necessary to take on the expanded services while ensuring area agencies continue to receive the service they rely on. Four phases of implementation are recommended.

### **Phase I: Re-engineer the BWT organization infrastructure.**

Phase I activities include implementing software, redesigning training programs, revising the BWT collective bargaining agreement, purchasing buses and other activities required to support an expanded BWT operation. BWT's Dial-A-Ride program will be the first service to operate under a re-engineered operation affording BWT an opportunity to test the new management processes in an environment it is most familiar.

### **Phase II: Begin operating ARC services.**

Since BWT already has a working relationship of contracted services with ARC, it becomes the most likely and least difficult service to add to the BWT network. Service should be converted as vehicle and driver resources permit starting with the St. Clair facility and concluding with the Marine City operation.

### **Phase III: Begin operating CMH services.**

The CMH transportation program is the third element to be operated under BWT. While the transportation requirements are not complicated, a greater lead-time will be required to develop a contractual relationship that meets the legal requirements imposed through the agency and its funding sources.

### **Phase IV: Begin operating EOC - Head Start services.**

The Head Start program is the largest program and is by far more complicated than the other agency transportation programs. The seasonality of the program combined with strict Federal safety standards and an extensive service day will require the longest lead-time for conversion under BWT.

## **Service Design**

### **Challenges**

The challenge of any coordination program is to design a single transportation operating entity that can maintain the sensitivities, closeness and flexibility of an in-house operation. The very nature of operating a larger system results in the introduction of bureaucratic procedures designed to organize and dispatch an ever-increasing volume of trips. The challenge for BWT is to re-invent itself to meet the needs of a changed operating environment.

The combined transportation program at its completion will represent a 176% increase in BWT's dial-a-ride paratransit service. This statistic alone frames the magnitude of the task that lies ahead. Viewed by its implementation phases, the increases move up as follows:

**% Increase**

**Cumulative  
From previous**

**Hours  
% Increase  
Phase**

**Phase I**  
21,440

**Phase II**  
32,840  
53%  
53%

**Phase III**  
44,118  
106%  
34%

**Phase IV**  
59,085  
176%  
34%

Until final schedules are developed it will be unclear exactly how many hours of service will be operated. Continuous ridership changes make developing firm schedules months or years in advance of the actual service transition date very difficult. We know at a minimum that the combining of services should be no less productive or resource intensive as is currently being provided.

	<b>Total Coordinated</b>	<b>BWT Dial-A-Ride</b>	<b>ARC</b>	<b>CMH</b>	<b>EOC</b>
Annual Ridership	245,808	37,592	67,987	50,688	89,541
Annual Miles	1,059,497	290,832	325,604	257,715	185,346
Annual Hours	59,085	21,440	11,400	11,279	14,967
Pass/Mile	0.23	0.13	0.21	0.20	0.48
Pass/Hour	4.16	1.75	5.96	4.49	5.98
Miles/Hour	17.9	13.6	28.6	22.8	12.4

Benchmarks must be established to measure the efficiency of the combined operation. The benchmarks are based on the existing performance of the individual systems. The benchmarks provide a means for evaluating the efficiency of a coordinated system. ‘Passengers per Hour’ and ‘Passengers per Mile’ statistics are the recommended benchmarks for BWT. The benchmarks established through the implementation of the coordination plan are as follows:

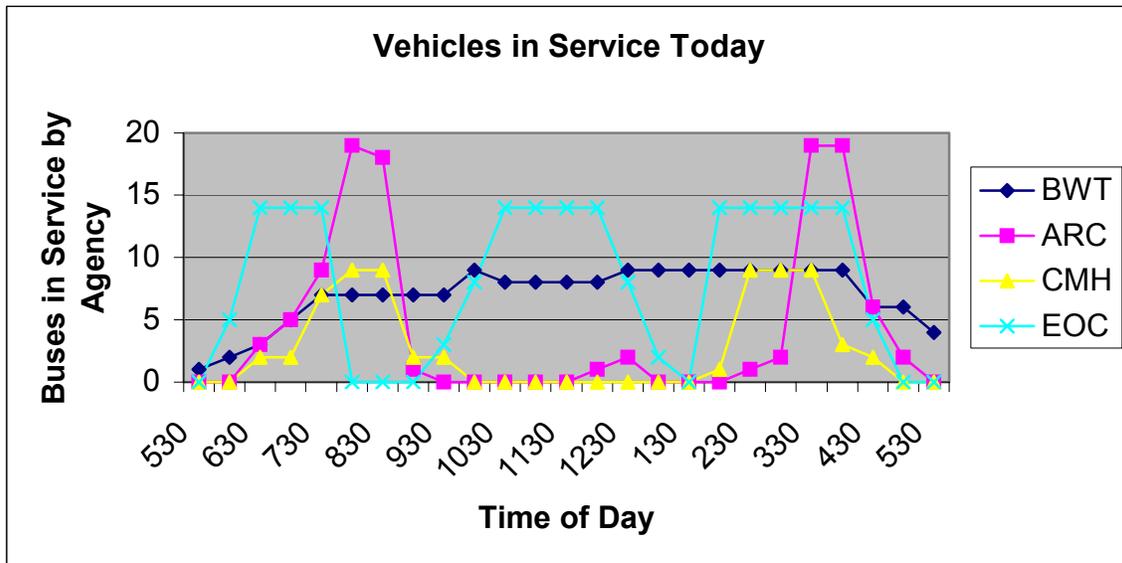
	<b>Benchmarks to be Achieved by the Completion of Each Phase</b>	
	<b>Passengers per Hour</b>	<b>Passengers per Mile</b>
<b>Phase I</b>	1.75	.12
<b>Phase II</b>	3.21	.17
<b>Phase III</b>	3.54	.18
<b>Phase IV</b>	4.16	.23

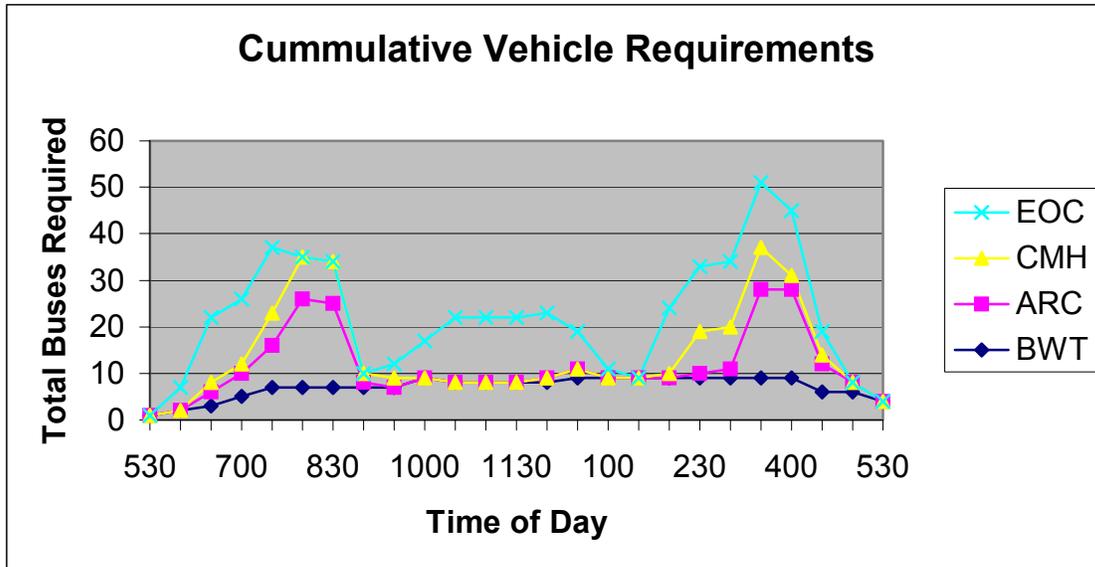
**Fleet Size**

Assuming the current program hours for the participating agencies, the volume of peak buses by phase are:

	<b>By Phase</b>	<b>Cumulative</b>
Phase I – BWT:	8 buses	8 buses
Phase II- ARC	19 buses	27 buses
Phase III – CMH	9 buses	36 buses
Phase IV – EOC	14 buses	<u>50 buses</u>
<b>TOTAL</b>	<b>50 buses</b>	
Spare ratio – 15%	<u>8 buses</u>	
<b>FLEET TOTAL</b>	<b>58 buses</b>	

Reducing the number of buses required to operate coordinated services is a prime objective of this effort. The 58 bus fleet projected for a combined service assumes no economy exists in combining services among programs. As the “Vehicles in Service Today” graph demonstrates, there is tremendous peaking in all four agency programs.

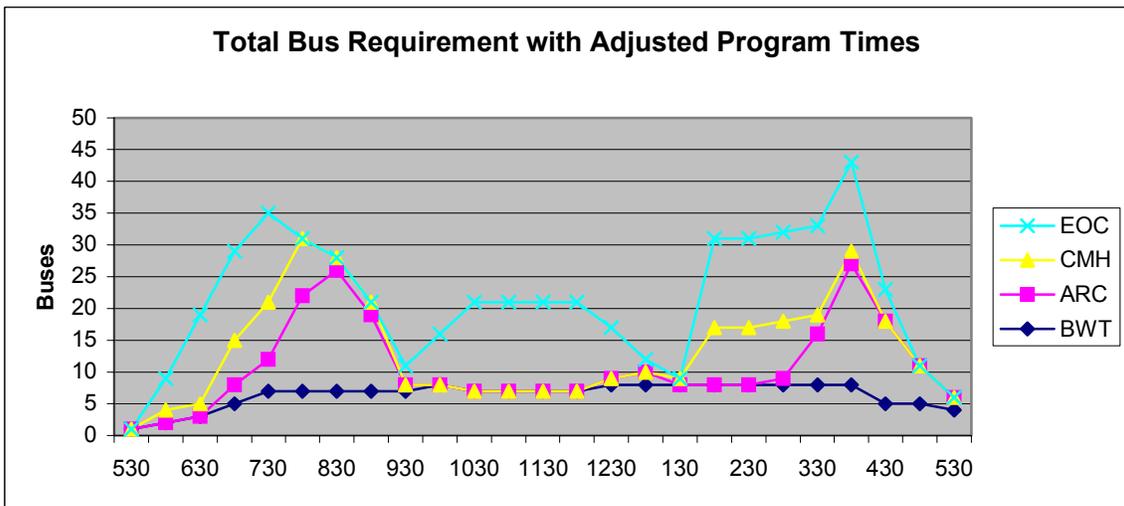
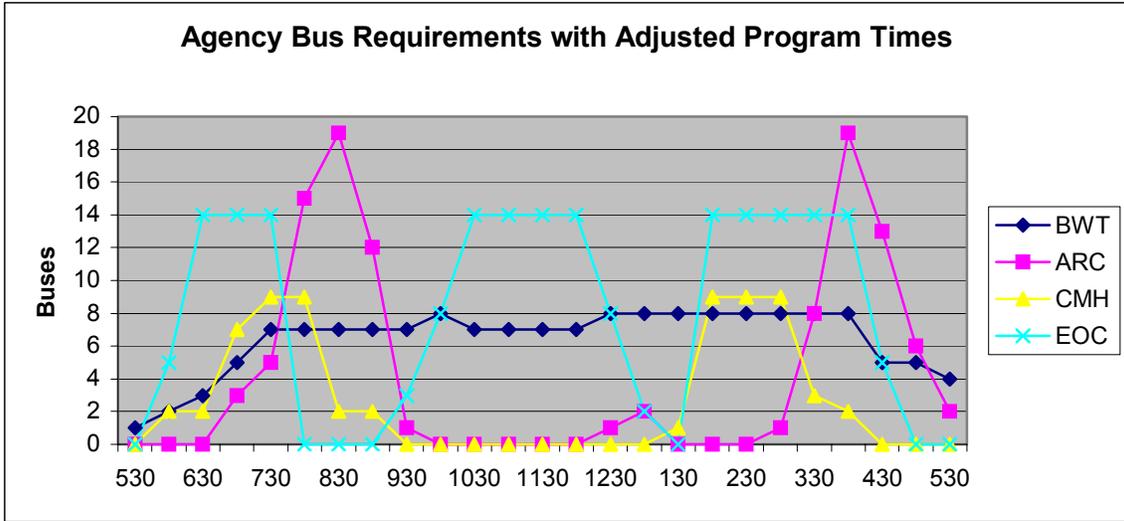




Vehicle requirements can be reduced in three ways.

*The first method is by combining consumer populations on a single trip.* For example, transport both ARC and CMH customers on the same bus and same trip. The ability to combine service depends on the capacity of the vehicle, the time it takes to reasonably transport customers and the viability of mixing customer groups. All agencies expressed concern, at least initially, of combining population groups. All expressed a need to have monitors on board and questioned the wisdom of especially combining Head Start preschool children and passengers with severe mental disabilities. Given the high passenger loads that already exist on this service, it is recommended that combining consumer populations on regularly scheduled service be handled on a case-by-case basis where it makes sense such as to remote portions of the County. A wholesale rescheduling of the system combining these groups is not recommended, especially given the regulatory issues embodied in the Head Start program, which is discussed, later in this report.

*The second method is by increasing the number of trips each vehicle makes.* For instance, the morning peaks for EOC and ARC occur at slightly different times making it possible for a single bus to perform an EOC trip then an ARC trip. While EOC and ARC service does not combine well for reasons involving vehicle specifications, there are other opportunities if program hours could be modified. The charts that follow demonstrate a potential savings of seven (7) buses if the ARC program could be adjusted one-half hour later and the CMH program adjusted one-half hour earlier. While adjusting program hours impacts many other areas of the services provided by the agencies, this method demonstrates that saving through a coordinated system are possible.



The third method is to redesign vehicle configurations to maximize loads in order to reduce trips. This most commonly occurs when limited wheelchair capacity requires two buses instead of one to serve a common destination. Having the correct vehicle mix could reduce the peak vehicle requirement. Discussions with agency and BWT staff indicates a potential one to two bus savings achieved through using buses with a wheelchair capacity of six tie-downs.

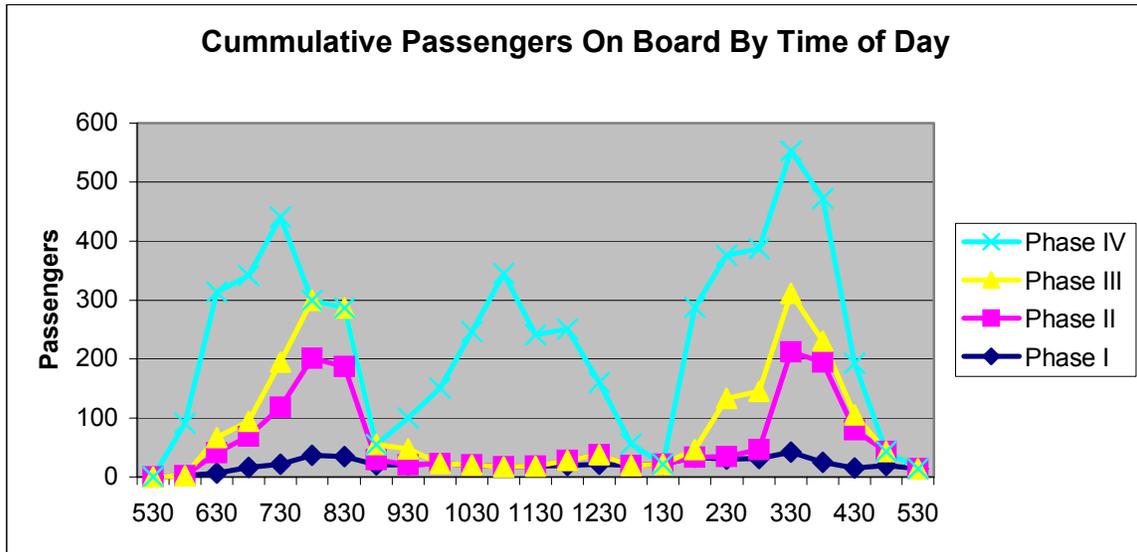
**Vehicles**

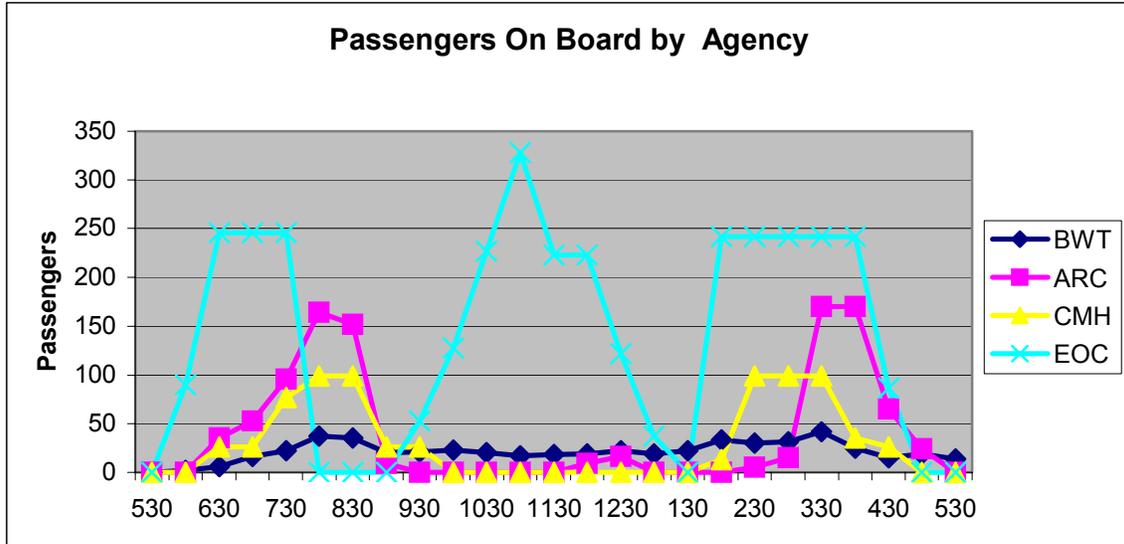
Identifying the proper vehicles for the coordinated service requires examining three variables. They are:

- Vehicle capacity versus demand
- Vehicle specifications to meet program requirements
- Vehicle configuration mix

## Vehicle Capacity

Identifying the vehicle with the correct seated capacity requires finding the correct balance between the total passengers carried versus the time on board it takes to pick-up and deliver customers. For example, if the goal is to deliver 400 passengers, a simple calculation of dividing by a 40-seat bus would conclude a fleet of ten buses is required. However, to deliver 40 passengers in a timely manner would be impossible given the geography of the area. To correctly identify a realistic bus configuration that takes into account the length of time a passenger is on board, we start by using a historical measure of the current performance of each agency. Our goal is to minimize travel time with no ride time exceeding 60 minutes. The tables that follow estimate the number of passengers on board a bus by hour of day. At its peak, the coordinated system will need to be capable of carrying 553 passengers at the same time based on the current operating scenario. At the present time the system seated capacity is 876 passengers. This gap represents the potential to increase loads. It must be noted, however, that travel time on board a bus is often the limiting factor to bus loads rather than seated vehicle capacity.





In transit it is typically most cost effective to plan for the peaks in order to have the greatest scheduling flexibility and thus create the most cost effective schedules. Assuming our coordinated system will create anywhere from 10 to 20 percent improvement in productivity, or in other words, the number of riders on board per trip will increase, a bus capable of carrying 25 to 28 passengers at one time is most efficient. Assuming school bus bench seating can be provided, a bus capable of transporting 17 to 18 passengers in forward facing seats is most efficient.

### Passenger Loads

Agency	Average	Max W/C	Min Scheduled Load	Max. Scheduled Load	Adjusted Max*	10% Efficiency	20% Efficiency
BWT	3.2	4	1	9	9	10	11
ARC	9.2	6	3	13	13	14	16
CMH	12	0	9	13	13	14	16
EOC	17.4	0	12	23	15	25	28
<b>System</b>	<b>9.6</b>	<b>5</b>	<b>1</b>	<b>23</b>	<b>15</b>	<b>25</b>	<b>28</b>

\* EOC service adjusted to reflect 3 children for every 2 adults seated

### Vehicle Specifications to Meet Program Requirements

The EOC-Head Start service has very specific bus specification requirements that differ from standard transit specifications. Modeled after school bus specs, the regulations permit the use of an *allowable alternate vehicle*. Such a vehicle must comply with FMVSS applicable to school buses related to crash survivability and mirrors but not FMVSS related to crash prevention such as flashing lights, stop arms or bus color. Child restraint system for children 50 pounds or less (most Head Start kids) must be designed in

accordance with FMVSS No. 571.213. Seating must be forward facing. Crash survivability standards must comply with 49 CFR Part 571. Mirrors must meet 49 CFR 571.111. Back-up warning buzzers must be provided as well as a radio system, charged fire extinguisher mounted near the driver’s seat with a sign indicating its location a first aid kit and a sign indicating its location, a seat belt cutter and a sign indicating its location, and any jump seats are built into the bus by the manufacturer.

In addition to the vehicle specification, the Agency providing transportation must have buses inspected annually by an inspection program licensed or operated by the State. Any new bus purchase must include the correct specifications and a clear statement of the vehicle’s intended use. It is critical that specifications for new bus equipment include this certification as part of the procurement process. Delivery of new buses must include an inspection to verify its compliance and a manufacturer’s certification of compliance with the applicable Federal Motor Vehicle Safety Standards (FMVSS)

BWT has two options in approaching how it designs its fleet to accommodate Head Start transportation.

Option 1 is to utilize the existing EOC fleet and have any coordinated services ride in a school bus. One of the primary reasons the Federal government designated a school bus specification for Head Start was to make it legal to operate school buses on non-school related service. The regulations allow buses to be painted in colors other than yellow, and do not require crossing arms and lights typically found on a school bus. Therefore, operating this equipment as part of the BWT fleet would be legal. There are a number of advantages and disadvantages to this approach.

<b>Advantages</b>	<b>Disadvantages</b>
An existing fleet is available from EOC	School bus seating and ceiling height is uncomfortable for adults making it less desirable for non-Head Start use.
Vehicle costs are a third of what a heavy duty transit vehicle costs	The fleet is not CNG so BWT will be required to identify alternative fueling facilities
Lower operating and maintenance costs	

Option 2 is to replace the EOC fleet with a transit style bus that meets the Head Start *allowable alternate vehicle* requirements. The issue becomes one of capacity since forward facing seating may require the use of a high floor bus, a longer bus, or more buses with less capacity.

<b>Advantages</b>	<b>Disadvantages</b>
Provides a class of vehicle that is comparable to the rest of the BWT fleet	Finding a bus with the correct level of seating will be difficult.
Provides greater flexibility to coordinate services with other agencies	The operating and purchase costs are substantially higher than a school bus

**Recommendation:** *It is recommended that BWT pursue Option 1 utilizing the existing fleet of EOC school buses.* After discussions with numerous bus manufacturers, there is only one bus that may meet the Federal guidelines for Head Start. However, the forward facing seating capacity would be a maximum of 12 passengers. Given the current scheduling, this would require six additional runs or a 44 percent increase due to the lower bus capacity. While a higher capacity of 16 passengers is possible with no tie downs positions, this would still require an additional two runs or a 14 percent increase. It is recommended that BWT sub-lease from EOC their current fleet.

### **Customer Mobility Requirements - Ambulatory versus Wheelchair**

The highest demand for wheelchair accessibility is for BWT service. Of the 42 agency runs currently being operated, only eight require wheelchair accessibility. In order to conform to ADA requirements, all vehicles purchased through Federal dollars and operated by BWT in general public use must be accessible regardless of the demand for accessibility.

### **Equipment Options**

BWT currently maintains a fleet of Orion equipment. The Orion II has become the standard for the system and therefore would be the leading candidate for an expanded fleet. This should not preclude the use of other vehicles. The following general specifications must be met to fulfill the requirements of the service.

1. Meets school bus crash test standards
2. Is capable of providing a minimum of 16 seats with seat belts.
3. Maximizes the number of forward facing seats.
4. Operates using CNG fuel.

The table below summarizes the equipment options available to BWT for use in this project.

Manufacturer	School Bus Crash Test Certification	Seating with seat belts	Forward Facing Seats	Max Total Seats	Max Tie Down	CNG	Low Floor	Cost Estimate	Life
Blue Bird-Type A	Yes	Yes	30	30		No	No	\$55k	7 yrs
Orion II	Yes	Yes	12	23	4	Yes	Yes	\$255k	12 yrs
Thomas	No	Yes	17	26	3	Yes	Yes	\$245k	12 yrs
Gillig – Low Floor	No	Yes		28		No	Yes	\$245k	12 yrs
Chance - OPUS	No	Yes	13	27		No	Yes	\$235k	12 yrs
New Flyer D30LF	Yes	Yes	17	25		Yes	Yes	\$280k	12 yrs

Several options were explored regarding options for the fleet. Bus manufacturers were contacted to ascertain if school bus styled seating could be installed in transit coaches as a means of increasing capacity and meeting Federal safety standards for Head Start transportation. No manufacturer was willing to provide such seating because of the inability to secure such seating. Another option was to determine if manufacturers would certify their bus as meeting FMVSS regulations for school bus crash worthiness testing. Orion and New Flyer were the only manufacturers that committed to providing such a certification as required by law. It should be noted however that both manufacturers had never provided such certification and we are somewhat skeptical that such certifications will be agreed to. Both these limitations supported our conclusion that school bus styled buses should continue to be used for the EOC-Head Start service.

Another consideration in vehicle configuration is maximizing the number of wheelchair tie-down positions. While BWT will not require a great number of high capacity wheelchair buses, they will need at least three. No manufacturer could provide a low floor bus with greater than four tie down positions. A more traditional cutaway design will be required for higher wheelchair capacity buses.

### Vehicle Mix

As the fleet grows so does the opportunity to create multiple seating configurations designed to meet a variety of purposes. Based on current trip demands, the following fleet configuration mix is recommended. Should BWT achieve an adjustment in the agency program hours resulting in a reduced peak vehicle demand, it is recommended that the number of Configuration B buses be reduced.

*The following mix of vehicles is recommended for this project.*

Configuration	Number of Buses	Buses Already in System	Additional Buses Required	Tie-Downs	Maximum Ambulatory Seats w Chairs	Minimum Forward-Facing Seats
A	14	14 EOC	<b>0</b>	0	25	25
B	25	8	<b>11</b>	2	18	0
C	12	6	<b>6</b>	3	12	0
D	4	10	<b>0</b>	4	6	0
E*	3	0	<b>3</b>	6	0	0
Total		58	38**	<b>20</b>		

\*Configuration unavailable in a low floor design. 24' cutaway most likely option.

\*\* Assumes 9 buses of existing BWT fleet are used for fixed routes and not counted towards this mix.

## **Drivers**

With the transition of service to BWT there will be an obvious need to increase the number BWT drivers. The new hires will need to be a mix of both full and part time employees based on the agency transitioned to BWT. The current labor agreement with the AFSCME Local 1518 will need to be amended in order to accommodate the new service profile created through the coordination of service. Conceptually, the biggest change will be how BWT manages its part-time driver work force. The current practice is to use part-time drivers to perform regular runs whose full-time driver is sick or on vacation, or to cover unassigned work. Under a coordinated system part-time drivers should be assigned permanently to part-time runs using a part-time driver pick. This creates greater consistency in service delivery and a more secure climate for the passengers. It is recommended that BWT create a part-time driver seniority list separate from its full-time drivers. Included in the list should be BWT extra-board positions in support of the fixed route operations to insure specific drivers continue to be available for fixed route run relief. Introducing this concept will require a review of the use of the term “seniority” in the contract.

More specifically, the following sections of the current labor agreement will need to be renegotiated.

*Article XII - Seniority. Section Two (d)(1)* – Clarification should be made that EOC-Head Start is considered seasonal work and therefore qualifies as part-time.

*Article XII – Seniority. Section Two (d)(5)* – Most new positions under this coordination plan will be part-time positions. This section’s restriction to only thirteen (13) part-time drivers is prohibitive.

*Article XV – Layoff and Recall.* Provisions will need to be made to accommodate the recall of seasonal employees.

*Article XXIII - Selection of Runs.* A bidding process for regular part-time runs needs to be developed.

*Article XXVI – Contracting and Subcontracting.* Provisions need to be made that allows BWT to subcontract service back to the agencies should the decision be made to return to the existing operating profile.

## **Driver Recruitment**

The goal of BWT will be to recruit as many existing drivers as possible from the agencies. Many current agency drivers also perform duties within the agency such as an aide or counselor. While some of these people may want to work for BWT to supplement their income from their agency, the new coordination effort may limit these opportunities since buses may not end or start their run at the agency they work but rather go on to perform another run. BWT should assume a worst-case scenario and base its

recruitment goals assuming only dedicated agency drivers. Another factor will be the requirement for drivers to have Commercial Drivers Licenses (CDLs). We should assume at least a ten percent failure rate for non-CDL drivers.

Agency	Total Agency Drivers	Agency Drivers Dedicated To Driving	Agency Drivers With CDLs	Total Projected Agency Drivers Transferring to BWT	Projected New Recruits Required
ARC	19	3	0	3	16
CMH	9	7	0	6	3
EOC	14	14	14	14	0
<b>Combined</b>	42	24	14	23	19

### Screening

The screening process is designed to insure drivers meet the minimum standards of BWT. All the agencies within the coordinated system do not have the same hiring standards. The following table outlines the recommended hiring standard to insure FTA compliance and compares this standard against the current practices of BWT and each agency.

Recommended Screening Standard	BWT	ARC	CMH	EOC
Age of 21 years or older	√	18	18	√
Class B CDL with air brake endorsement	√	Chauffeurs	Chauffeurs	√
Drug Screen	√	√	√	√
Criminal background check <ul style="list-style-type: none"> <li>No felonies</li> <li>No assault or molestation</li> <li>No theft</li> </ul>	No	State police	State Police	√
Driving record <ul style="list-style-type: none"> <li>No DUI convictions</li> <li>4 points or less</li> <li>No suspensions in past 5 years</li> </ul>	No 6 points √	No 0 points No	No No No	No 6 points No
Employment history	√	√	√	√

Drug background check	No	No	No	√
High School degree or equivalent	Desired	No	No	No

## Training

The training requirements of a paratransit driver surpass the requirements of fixed route drivers. Customer sensitivity, passenger assistance and emergency first aid are just some of the skill sets required of paratransit drivers. A number of skill sets are required by law while others represent industry best practices. The agencies within this coordination effort provide a wide variety of training both in terms of subject matter and training sophistication. The goal of BWT should be to deliver a consistent training program designed to insure a minimum level of skill for its drivers. The following table identifies the recommended training program for BWT compared to the efforts of each agency.

Recommended Training Program	BWT	Current Agency Training Program			
		BWT	ARC	CMH	EOC
<b>Operating Rules and Procedures</b> Recommend: Current practice		√	√		√
<b>Service Overview</b> Recommend: Current practice		√	√		√
<b>Defensive Driving</b> Recommend: Smith System		√			√
<b>First Aid/CPR</b> Recommend: Red Cross Instructor Certification			√	√	√
<b>Passenger Assistance Techniques</b> Recommend: PAT			√	√	
<b>Passenger Sensitivity</b> Recommend: Local agency such as the Center for Independent Living					
<b>Blood Borne Pathogen</b> Recommend:			√	√	
<b>Recipient Rights</b> Recommend: CMH program				√	
<b>Operational Emergencies and Evacuation Procedures</b> Recommend: Current manual		√			√
<b>Radio Procedures</b> Recommend: Current manual		√			
<b>Vehicle Orientation and Pre-trip Inspections</b>		√	√		√

Recommend: Current manual				
<b>Map and Manifest Reading</b> Recommend: Develop in-house				
<b>Skills Course</b> Recommend: APTA Roadeo course				√
<b>Road Training</b> Recommend: Current practice	√			√
<b>Drug Awareness Instruction</b> Recommend: EAP	√			

## Compensation

The assumption of this coordination plan is that the current compensation policies of BWT under its agreement with AFSCME will be applied to the expanded service. A review of the compensation policies of the participating agencies reveals a more generous package will be provided to drivers under this system. The following table provides a comparison of compensation policy.

Compensation Category	Current Compensation Plan				
	BWT		ARC	CMH	EOC
	Full	Part 1040 to 1560 hrs	Part Time only	Part Time only	Part Time only
Training Pay	Min. wage for first 80 hours	\$12.30		\$ 8.89	\$10.00
Starting Pay	\$12.30	\$12.30	Varies	\$ 8.89	\$10.00
Top Pay	\$12.30	\$12.30		\$ 9.98	\$11.25
Annual Increase	\$ .20	\$ .20		\$ .36	\$ .125
Average Wage	\$12.30	\$12.30			
Overtime	Over 40 hours	Over 40 hours	Over 40 hours	Over 37 ½ hours	
Holidays	7 days, 1 floating				
Funeral Leave	3 days			5 days paid	
Vacation					
1 year seniority	1 week	½ week		2.5 days	
2 years seniority	2 weeks	1 week		8.5 days	
8 years seniority	3 weeks	1 ½ wks		10.0 days	
18 years seniority	4 weeks	2 weeks		11.5 days	
Sickness and Accident Policy	26 weeks				
Life Insurance	\$10,000				
Dental	50%				

Optical	Yes				
Health Single	100% of cost	80% of cost			
Single plus 1	100% of cost				
Uniforms	Full set	Full set			

### **Monitors**

Monitors are currently provided to some degree with all the coordinating agencies. EOC-Head Start is required by law to have a monitor on all runs. ARC provides monitors on 6 out of 19 runs. CMH provides monitors on 3 of 9 runs. EOC provide monitors on 14 of 14 runs. In all three operations monitors also serve as the organization's driver extra board in case a driver calls in sick.

*At this time it is recommended that monitors be provided by each of the agencies.* While this logistically may add complication, staffing monitor positions can be both costly and time-consuming.

### **Minimum Qualifications**

<b>Recommended Screening Standard</b>	<b>Comment</b>
Age of 21 years or older	Yes
Class B CDL with air brake endorsement	Not required but paid extra if willing to operate as a backup driver.
Drug Screen	Yes – zero tolerance policy
Criminal background check <ul style="list-style-type: none"> <li>• No felonies</li> <li>• No assault or molestation</li> <li>• No theft</li> </ul>	Yes – same as driver
Driving record <ul style="list-style-type: none"> <li>• No DUI convictions</li> </ul>	Yes
Employment history	Yes
Drug background check	Yes
High School degree or equivalent	Preferred, not required

## Monitor Training

Monitors should have sufficient training to safely assist passengers on and off the bus, handle disciplinary issues, and assist the driver in locating street addresses and responding to emergencies. The following monitor training program is recommended.

<b>Recommended BWT Monitor Training Program</b>	<b>Comment</b>
<b>Operating Rules and Procedures</b> Recommend: Current practice	Same as drivers
<b>Service Overview</b> Recommend: Current practice	Same as drivers
<b>Defensive Driving</b> Recommend: Smith System	Not required
<b>First Aid/CPR</b> Recommend: Red Cross Instructor Certification	Same as drivers (required by Head Start)
<b>Passenger Assistance Techniques</b> Recommend: PAT	Same as drivers (required by Head Start)
<b>Passenger Sensitivity</b> Recommend: Local agency such as the Center for Independent Living	Same as drivers
<b>Blood Borne Pathogen</b> Recommend:	Same as drivers
<b>Recipient Rights</b> Recommend: CMH program	Same as drivers (required by CMH)
<b>Operational Emergencies and Evacuation Procedures</b> Recommend: Current manual	Same as drivers (required by Head Start)
<b>Radio Procedures</b> Recommend: Current manual	Same as drivers
<b>Vehicle Orientation and Pre-trip Inspections</b> Recommend: Current manual	Same as drivers (required by Head Start)
<b>Map and Manifest Reading</b> Recommend: Develop in-house	Not required
<b>Skills Course</b> Recommend: APTA Rodeo course	Not required
<b>Road Training</b> Recommend: Current practice	Not required
<b>Drug Awareness Instruction</b> Recommend: EAP	Same as drivers

## **Scheduling**

### **Staffing**

The scheduling function is primarily performed at the time trip requests are booked. There will be additional scheduling activity performed with standing order requests from agencies. *The agency coordination activities plus the additional reporting and training requirements supports a recommendation to add a Special Services Coordinator position.*

A Special Services Coordinator position should be established with its prime responsibilities to be:

- Coordinate new trip requests with agencies
- Maintain the client file
- Maintain the standing order file
- Monitor and manage schedules
- Conduct driver training on matters related to paratransit operating procedures
- Assist the Dispatcher during peak periods
- Maintain the Paralogic system including upgrades and back-ups

### **Hours of Operations**

The Special Services Coordinator should work hours that mirror that of the agencies being served. The recommended work shift is 7:00am to 4:00pm. Actual experience may require these times to be modified.

### **Recommended Trip Booking Procedures**

All trips operated by BWT must be entered into Paralogic. In order to accept a trip request, a customer data base file will be maintained containing all relevant transportation-related information. Each agency will complete a customer profile form for newly enrolled riders (Form A). This will require the following customer information:

- Customer name
- Customer ID number consistent with any current numbering system used by the contracted agency
- Agency code
- Home address
- Home phone number
- Emergency contact information
- Disability code
- Special instructions
- Person(s) authorized to cancel trip

Individual Home to Center trips will be scheduled through the agency coordinator via fax using the Trip Request form (Form B). Since most trips are considered standing orders (meaning they will occur repeatedly week after week), trip reservation requests will be made once at the initiation of a new trip, and a second time to change or discontinue a trip that is already being operated.

Group trips originating from the Center will be scheduled on Thursday prior to the week of travel using the Group Trip Request form (Form C).

*Emergency transportation* is a same-day or next-day service requests that has not had final agency authorization for routine, on-going transportation. Emergency transportation is designed as a fail-safe mechanism to meet immediate transportation needs. Requests will be made verbally between the BWT dispatcher and the authorized agency representative. Each agency must provide BWT on agency letterhead a list of representative authorized to request emergency transportation. Written service requests on the appropriate form will be required for continued service beyond a 48-hour period.

### ***Coordination Links***

1. ARC – Trips between home and either the Port Huron or Marine City facility will be scheduled using the Trip Request form (Form B).
  - *Leisure Options* trips will be scheduled by Thursday for the following week's trips utilizing the Group Trip request form (Form C).
  - *Work Group* trips operating from the Center to work sites will be scheduled using the Group Trip request Form C.
  - *Life skills* trips operating from the Centers to community destinations will be scheduled using Form C.
  - *Night Drop-In* service will be scheduled using Form B for individual trips.
  - *Social/Recreation* trips from the Center to area attractions will utilize the Group reservations request Form C.
2. CMH – Trips between home and a Center will be scheduled using the Trip Request form (Form B).
  - *Field trips* operated from any of the five centers will be scheduled by Friday of the week before travel using Form C.
  - *Work Group* trips will be scheduled as a standing order using Form C.
  - *Mail runs* and other special trips will be operated by CMH.
3. EOC – The Head Start program is unique because it transports pre-school children and has very specific ride-time and operating procedures mandated by law. The goal of the coordination effort will be to identify synergies between this service and other agencies. However, in the beginning we envision this service to run in a “stand alone” capacity with opportunities to coordinate occurring on a case by case basis. The scheduling function should remain with the EOC while driver dispatching and control moves to BWT.

In order to increase the opportunity for coordination, EOC will send the client list and fixed schedules to BWT for inclusion in the Paralogic system. These trips will be noted as Head Start trips and be assigned only to school bus configured buses. By having dispatch control over these trips, BWT will retain the capability of adding trips before or after the scheduled EOC runs.

## **Dispatching**

### **Staffing**

BWT currently staffs its dispatch office at a ratio of 1 Dispatcher to 14 buses on the road. The standard industry practice is to staff a paratransit dispatch office at a ratio of 20 buses to 1 Dispatcher. Under Phase II ARC service implementation, approximately 19 buses will be added bringing a total of 33 buses under the control of the dispatcher. *It is recommended one additional Dispatch position be created with the transition of the ARC-St. Clair service.*

### **Hours of Operation**

BWT currently staffs the Dispatch office from 6:00am until 6:00pm Monday through Wednesday, 6:00am until 10:00pm Thursday and Friday, and 8:00am until 6:00pm on Saturday. The hours of operations of each agency falls within the current operating hours of BWT.

### **Facility Set-up**

The Dispatch office should contain both Paralogic computers with the primary computer hooked to a modem line for future support. Two workstations should be established in the Dispatch office to allow both the dispatcher and scheduler to work simultaneously.

*An additional phone line* outside of the three-line rotation should be added to provide agency representatives with a direct line into the Dispatch office. This will provide coordinating agencies easy access to communicate service failures, cancellations and add-ons.

*A second telephone handset* should be installed to allow two Dispatchers to answer the phone at one time.

The introduction of computerized dispatching combined with increased call volumes creates the need to have a hands-free phone system. It is recommended that *telephone headsets be added* to the two dispatch positions.

*A fax machine should be located in the Dispatch office* to handle incoming trip requests, client information and other scheduling and dispatching information. A

dedicated fax machine is recommended to insure delivery of time sensitive information to the dispatchers in a confidential manner.

With the move to a new facility it is recommended the new phone system be capable of sequencing incoming calls on a first call, first answer basis. The sequencer should have the ability to answer and hold calls as well as produce basic call reports including abandoned calls, call wait times, line activity report and other management reporting tools.

### **Recommended Procedures**

All regularly scheduled agency service will be operated by and dispatched through BWT. Each driver will have a driver manifest containing the name, address, pick-up time and destination of its passengers. The time and mileage of each passenger pick-up and drop-off will be recorded on the manifest.

Caregivers or agency representatives will be instructed to call the BWT dispatch office no less than 45 minutes prior to the scheduled pick-up time to cancel a trip. Any passenger not riding and not calling to cancel their trip will be recorded as a no-show. BWT will provide agencies with cancellation and no-show information for those passengers with excessive occurrences. The agency will be responsible for contacting the customer to determine if issues exist that should preclude the passenger from being scheduled on the service.

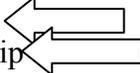
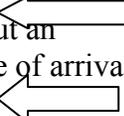
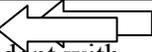
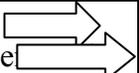
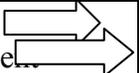
All service will operate door-to-door. Buses will wait a maximum of five minutes before reporting a no-show to the dispatcher. Drivers are instructed to report to the dispatcher any no-show prior to leaving a pick-up point. The dispatcher will telephone the caregiver to confirm they are not riding. The driver, upon reaching the center, will provide the designated Center coordinator with a non-attendance slip informing them of any scheduled passenger which did not ride.

### **Coordination Links**

1. ARC - All cancellations of return trips will be called in to the BWT dispatcher.
2. CMH - All cancellations of return trips will be called in to the BWT dispatcher.
3. EOC – All cancellations of return trips will be called in to the BWT dispatcher.

### **Communication**

Communication among the stakeholders is often one of the most confusing aspects of a coordinated transportation program. The primary participants are the agency program managers, Blue Water Transit officials, and the consumers of the service. It is important that from the outset to establish a clear understanding of how, where and when communication will occur among the stakeholders. The matrix below establishes the communication flow for various actions likely to be performed in the system.

Action	BWT	Agency	Consumer
Booking a trip 	Special Services Coordinator	Coordinator	
Canceling a trip permanently 	Special Services Coordinator	Coordinator	Caregiver
Canceling a trip for the day 	Lead Dispatcher 	Coordinator	Caregiver
Booking an event trip 	Special Services Coordinator	Coordinator	
Inquiring about an estimated time of arrival (ETA) 	Lead Dispatcher 	Coordinator	Caregiver
Report an incident with a driver 	Special Services Coordinator	Coordinator	Caregiver
Report an incident with a passenger 	Special Services Coordinator	Coordinator	Caregiver
Report an incident between two passengers 	Special Services Coordinator	Coordinator	Caregiver

### **Management Structure**

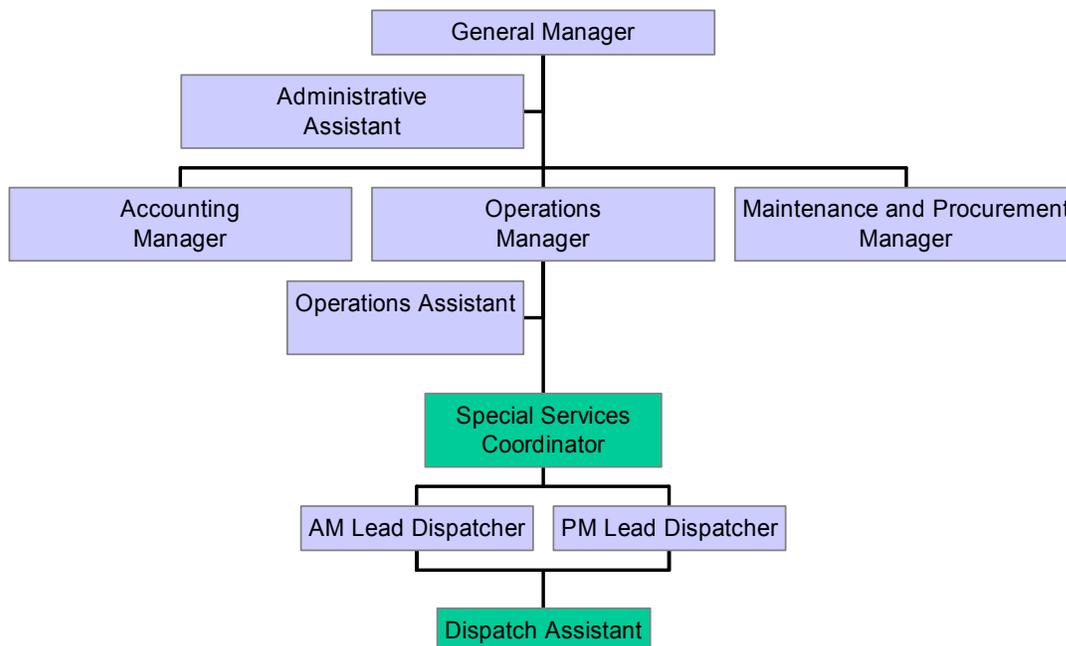
The increase of service will result in a significant increase in activity of a number of BWT functions. These include:

- Recruitment: A larger part-time work force will result in greater driver turnover and the need to expand BWT's proactive recruitment efforts.
- CDL Requirement: The conversion from a primarily van operation to a larger capacity bus will mean a greater demand for CDL drivers in the transportation network. This will put added strain on both the recruiting and training efforts.

- Training: New recruits increase the number and size of training classes while expanded training requirements will increase the length of the training program.
- Driver management: A larger staff will require greater supervision, problem-resolution and other activities involved in managing a driver work force.
- Administration: The coordination of services will increase administrative activity in order to develop agency-specific invoices and supporting ridership data as well as the maintenance of driver records, uniform allowances, benefits coordination, and service recognition programs.
- Safety: An expanded system transporting customers with disabilities has the potential to increase the overall safety-related risks of the system. A more aggressive safety program will be required.
- Computer support: System back-ups, file maintenance,

The management of the coordinated system will require that the operational organization be restructured to accommodate the expanded duties and increased trip activity. ***Two new positions are envisioned including a Special Services Coordinator and a Dispatch Assistant.*** A reassignment of responsibilities is also proposed to increase the capability of BWT to hire, train and monitor a greater volume of employees. Given the increased number of more physically and mentally vulnerable passengers, there will need to be a greater emphasis on training and safety issues. Since these are staff intensive activities, the proposed structure reallocates resources towards this effort.

### Proposed Management Structure for a Coordinated Transportation Program



The expanded workload requires the redistribution of duties among the staff. It is recommended that certain positions be assigned the lead responsibility for particular functions with a backup support person assigned for each function.

*Operations Manager:*

Primary Responsibilities

1. Manages driver group including conducting performance evaluations and administering the progressive disciplinary policies of BWT
2. Recruits and hires new drivers
3. Recruits and trains new Dispatchers
4. Leads location safety effort
5. Supervises road operations
6. Conducts accident reviews and investigations

Secondary Responsibilities

1. Liaison with participating agencies
2. Monitors radio
3. Responds to customer service inquiries
4. Conducts elements of classroom training
5. Supports and maintains Paralogic software system

Back up:        Operations Assistant  
                    Special Services Coordinator

*Operations Assistant:*

Primary Responsibilities

1. Leads new driver road and classroom training
2. Maintains driver training and personnel records
3. Conducts ongoing evaluation of drivers
4. Investigates customer complaints
5. Generates NTD reports

Secondary Responsibilities

1. Back-up to Dispatchers
2. Assists in location safety effort
3. Assists in accident investigations

Shed Duties

1. Monthly service reports and invoices
2. Dispatch relief

Back up:        Operations Manager  
                    Special Services Coordinator

*Special Services Coordinator* (new position):

Primary Responsibilities

1. Supports and maintains Paralogic software system
2. Reviews service schedules for the next day
3. Schedules all standing orders
4. Generates invoices and reports for participating agencies
5. Serves as liaison with agencies on service scheduling and performance issues
6. Monitors radio
7. Monitors driver check-in procedure

Secondary Responsibilities

1. Back up to Operations Manager
2. Assists in driver and Dispatcher training

Back up:       Dispatcher  
                  Operations Assistant

*Dispatcher:*

Primary Responsibilities

1. Book future trip requests
2. Dispatch same day trip requests
3. Modify schedules to ensure on-time performance
4. Assign drivers and buses to runs

Secondary Responsibilities

1. Assist the Special Services Coordinator in booking standing orders

Back up:       Special Services Coordinator  
                  Dispatch Assistant

*Dispatch Assistant* (new position)

Primary Responsibilities

1. Assist the Dispatcher in booking future trips
2. Respond to customer phone inquiries
3. Generate manifests for the following service day
4. Relieve the Lead Dispatcher for breaks

Secondary Responsibilities

1. Provide back-up driving to relieve temporary service interruptions

**Implementation**

The pace at which service is brought under the control of BWT is dependent on the interest of the coordinating parties to proceed. Three factors dictate the speed of the conversion from an operational perspective. Those are vehicle procurement (12 to 18

months lead time) driver recruitment/training (45 to 90 days lead time) and facility (parking and maintenance for an additional 50+ buses). It is recommended that a timetable be developed using these three factors as the framework from which other implementation activities can be scheduled. Those activities designated as relating to the infrastructure (*I*) of the project should be performed as soon as possible.

## **Implementation Activities**

### Driver Recruitment

- Finalize compensation package (*I*)
- Formalize amendment to collective bargaining agreement (*I*)
- Identify vendor to perform criminal history, driving record and drug background checks (*I*)
- Develop job summary fact sheet for new recruits (*I*)
- Develop applicant tracking record (*I*)
- Discuss employment opportunities with agency drivers
- Advertise employment opportunities
- Screen new recruits

### Driver Training

- Purchase PAT training program (*I*)
- Identify and contract for First Aid/CPR training (*I*)
- Develop passenger sensitivity program through area agencies (*I*)
- Develop Blood Borne Pathogen program (*I*)
- Develop manifest/ map reading training module (*I*)
- Develop comprehensive training manual (*I*)
- Train trainers in Smith System, PAT and Recipient Rights (*I*)
- Revise training log to reflect new training modules (*I*)

### Scheduling

- ✓ Purchase scheduling/dispatching software (*I*)
- ✓ Purchase hardware to support software system (*I*)
- ✓ Test system software (*I*)
- Train staff on software use (*I*)
- ✓ Enter existing clients into database (*I*)
- ✓ Enter existing standing orders into database (*I*)
- ✓ Build vehicle file (*I*)
- ✓ Build dispatch days for ordertaking (*I*)
- Distribute forms to agency for use in booking trips
- Book trips transitioned to BWT
- Review agency program start and end times
- Convert Dial-A-Ride operations to Paralogic

### Management Reorganization

- Finalize reorganization structure (*I*)

- Identify Special Services Coordinator (*I*)
- Identify Dispatch Assistant (*I*)
- Train new staff (*I*)
- Reassign duties of existing staff as required (*I*)

#### Vehicle Procurement

- Invite prospective vendors to demonstrate vehicles (*I*)
- Develop vehicle specifications (*I*)
- Advertise for bid (*I*)
- Review proposals (*I*)
- Award proposals (*I*)
- Inspect bus build (*I*)
- Accept buses (*I*)

#### Facility/Auxiliary Equipment

- Modify existing dispatch office (*I*)
- Purchase phone headsets (*I*)
- Modify phone lines (*I*)
- Install call sequencer (*I*)
- Identify future expanded space for parking and maintenance (*I*)

#### Inter-Agency Relationship

- Develop rate for services
- Develop inter-agency operating contract
- Develop equipment sub-lease agreements
- Exchange client information
- Exchange trip information
- Design service transition plan
- Confirm communication protocol
- Confirm emergency procedures
- Confirm reporting requirements by agency
- Develop service invoice and billing mechanism
- Develop reports through Paralogic

✓ *Indicates completed task*

**FORM A – CUSTOMER PROFILE**

Name \_\_\_\_\_  
*First* \_\_\_\_\_ *Last* \_\_\_\_\_

Agency ID Number \_\_\_\_\_

Home Address \_\_\_\_\_ Apt Unit \_\_\_\_\_  
\_\_\_\_\_

City \_\_\_\_\_ State MI \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Caregiver Name \_\_\_\_\_

Birth date \_\_\_\_\_ Sponsor (circle) ARC ARC-MC CMH EOC

Mobility (circle)    Ambulatory            WC – Standard            WC - Electric  
  
   WC – Oversized            Walker                            Cane

Special Instructions    Seizures            Requires Monitor

Other (specify) \_\_\_\_\_

In case of emergency notify: Name \_\_\_\_\_

Phone \_\_\_\_\_

Relationship \_\_\_\_\_

Person making request \_\_\_\_\_ Phone \_\_\_\_\_

**FORM B – TRIP REQUEST FORM**

Name \_\_\_\_\_ and/or ID \_\_\_\_\_

Pick-up Address \_\_\_\_\_

Comments \_\_\_\_\_

Drop Off Address \_\_\_\_\_

Comments \_\_\_\_\_

Time needing to Arrive \_\_\_\_\_ AM or PM

Time needing to Return \_\_\_\_\_ AM or PM

Service to begin on what date Date \_\_\_\_\_

Day \_\_\_\_\_

Last day of service Date \_\_\_\_\_

Day \_\_\_\_\_

Days of travel:      Monday      Tuesday      Wednesday      Thursday      Friday

Special instructions  
\_\_\_\_\_

Person making request \_\_\_\_\_ Phone \_\_\_\_\_

**FORM C – GROUP TRIP REQUEST FORM**

Requested By \_\_\_\_\_ Phone \_\_\_\_\_

Number of people traveling    Ambulatory    \_\_\_\_\_

   Wheelchair    \_\_\_\_\_

   TOTAL    \_\_\_\_\_

Number of Buses Scheduled \_\_\_\_\_

Pick-up Address \_\_\_\_\_

   Comments    \_\_\_\_\_

Drop Off Address \_\_\_\_\_

   Comments    \_\_\_\_\_

Time needing to be Picked Up    \_\_\_\_\_ AM or PM

Time needing to be Returned    \_\_\_\_\_ AM or PM

Service to begin on what date    Date    \_\_\_\_\_

   Day    \_\_\_\_\_

A one time trip?    Yes    No

If not, what days of travel:    Monday    Tuesday    Wednesday    Thursday    Friday

Special instructions  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_